WORLD BANK NEWS

Volume XII, No. 12 March 25, 1993

Environmental Damage Robs Countries' Income

Development experts have long debated how environmental damage affects economic development.

Some have discounted fears of environmental destruction and have encouraged countries to do whatever they can to stimulate economic growth. Others have contended that unbridled production will ruin the planet's precious resources and called for slower, more "sustainable" growth.

With the right actions, the developing world can enjoy strong economic growth and still protect the environment, says a new book published by the World Bank.

"The world will not necessarily come to an end if imaginative policies are devised and implemented," say David Pearce and Jeremy Warford, authors of *World Without End*, a comprehensive volume on environmental economics in developing countries.

"The issue is how, not whether, to grow. If poverty is to be reduced and the standard of living of the average person improved, economic growth must remain a legitimate objective of national governments and the world community. But most people are now painfully aware that pursuing economic growth without paying adequate attention to the environment is unlikely to be sustainable. It cannot last."

Y. Hodar

Farmer gathers fuelwood in Burkina Faso, where environmental damage cost the country 8.8 percent of GNP in 1988.

Pearce is professor of environmental economics and director of the Centre for Social and Economic Research on the Global Environment at the University College London. Warford, senior adviser to the World Bank's Environment Department, is on leave as a visiting professor of environmental economics at the University College London.

Pearce and Warford say environmental damage robs developing countries of precious income.

Damage from deforestation, soil erosion, pollution and water mismanagement can combine to cut a country's output by 5 percent or more. Environmental destruction also harms the quality of life.

"Environmental quality is important to all nations, but especially in the poorest countries. Maintaining environmental quality and the supply of natural resources is fundamental for the health and well-being of all people. Poor water quality results in disease, land degradation means less biomass for fuel and fodder and lost food output as soil quality declines."

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Less than one-half of all girls in Senegal attend primary school. A project receiving IDA financing will raise primary school enrollments by 7 percent in five years. **3**

Spring meetings of the World Bank and IMF begin next month. Tentative schedule of events and important registration information for journalists inside. **5**

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PUBLICATIONS

Toward a World without End

WORLD, *from page 1*

Some development experts say reducing poverty and debt and slowing population growth are the best ways of curing environmental problems in developing countries. But Pearce and Warford say the environment cannot wait until incomes rise or population growth slows.

David Pearce

Jeremy Warford

Instead, both developing and industrialized countries must eliminate policies that cause rampant environmental destruction and adopt more environment-friendly policies.

"There have to be incentives to conserve resources and incentives to change technology," they say. "If the causes of environmental degradation lie in the workings of the economy, then so does the solution."

Those solutions include changes in taxes, resource rights, land tenure and prices of some goods, particularly fuel.

"Economic incentives play an important role in resource conservation. Incentives can be enabling by, for example, defining property rights so that those who use a resource have an interest in conserving it for the future. Property rights thus replace uncertain ownership which deters conservation."

Pearce and Warford also appeal to the international community to tackle global environmental issues that may affect economic growth. They call for a "system of incentives" for cooperation to tackle problems like global warming, deforestation and ocean pollution.

"All countries of the world share the so-called global commons—that is, the protection afforded by the ozone layer, the role that the atmosphere plays as a carbon sink, and the services provided by the world's oceans. Only collective actions can conserve these resources."

Environmental Economics

World Without End shows there is room for "win-win" policies that support environmentally sustainable development, Warford told *World Bank News* in an interview in Washington. But that conclusion has many development experts disagreeing with the book.

"Although the debate about sustainable development has not convinced some economists that the nature of the development process must be changed, it has encouraged others to give natural resources an even higher status in policymaking," write Warford and Pearce.

Warford added that the World Bank has made great strides in embracing the idea that environmental damage is closely linked to economic development.

"If you asked any economist at the World Bank today if the environment is important to the country they work on, they would say 'Yes.' A few years ago, they wouldn't have said that."

World Without End is priced at $39.95. Journalists may receive complimentary review copies by writing on company letterhead to the World Bank, Office of the Publisher, Marketing Unit, Room T-8054, Washington, D.C., 20433, U.S.A. Fax: (202) 676-0579. □

Estimates of Environmental Damage In Select Countries

Country and year	*Form of environmental damage*	*Annual costs as a percentage of GNP*
Burkina Faso, 1988	Crop, livestock and fuelwood losses from land degradation	8.8
Costa Rica, 1989	Deforestation	7.7
Ethiopia, 1983	Effects of deforestation on the supply of fuelwood and crop output	6.0-9.0
Germany, 1990[a]	Pollution damage (air, water, soil pollution, loss of biodiversity)	1.7-4.2
Hungary, late 1980s	Pollution damage (mainly air pollution)	5.0
Indonesia, 1984	Soil erosion and deforestation	4.0
Madagascar, 1988	Land burning and erosion	5.0-15.0
Malawi, 1988	Lost crop production from soil erosion	1.6-10.9
	Costs of deforestation	1.2-4.3
Mali, 1988	On-site soil erosion and losses	0.4
Netherlands, 1986	Some pollution damage	0.5-0.8
Nigeria, 1989	Soil degradation, deforestation, water pollution, other erosion	17.4
Poland, 1987	Pollution damage	4.4-7.7
United States,[b] 1981	Air pollution control	0.8-2.1
1985	Water pollution control	0.4

a. Federal Republic of Germany before unification

b. Measures the benefits of environmental policy (avoided rather than actual damages).

Note: Although the estimates use different techniques, relate to different years, and vary in the quality of the underlying research, they suggest some broad interpretations. In the industrial world total gross environmental damage may be around 2-4 percent of the gross national product; in Eastern European countries, 5-10 percent; and in the poor developing nations, 10 percent and above.

LENDING

Senegal Brings More Rural Girls into Classrooms

Rural girls in many developing countries often face barriers to attending primary school. Economic needs, social expectations and cultural norms keep girls out while school systems often do not reach into rural areas.

In Senegal, less than one-half of all girls attend primary school while more than two of every three boys are enrolled. In the country's rural areas, the female attendance rate is even lower. But thousands of rural Senegalese girls will enter the classroom with the help of an innovative project supported by a credit of SDR 29.1 million ($40 million) from the International Development Association.

The project aims to improve overall primary education in Senegal and boost national primary school enrollment of both boys and girls by 7 percent by 1998. The plan focuses on building new classrooms and repairing old ones in rural schools but will also launch a handful of educational initiatives designed to enroll more girls in school.

"The idea is to improve primary education but also to provide incentives for girls to enroll, allowing them to take advantage of the increased educational opportunities," says Rosemary Bellew, education planner in the World Bank's Africa Sahelian Department.

Aiding Development

To bring more girls into school, the project will launch programs targeted toward the home, school and community in regions where girls make up less than 41 percent of enrollment, which is the national average.

Programs will include a national information campaign aimed at advertising the benefits of educating girls, studies of barriers to girls' enrollment and an evaluation of school policies and textbooks to remove those barriers. Educating girls helps development efforts in many ways, says Bellew. Fertility rates fall, child mortality rates decline and maternal and child health improves when more girls attend school.

Senegal's overall primary school enrollment is slated to rise from 58 percent to 65 percent under the new project. By building 1,310 new classrooms and repairing 1,080 rooms, the plan will help create 65,000 new openings for primary school students.

Bellew says the construction will be carried out by Senegal's innovative non-governmental contract management agency set up under previous World Bank-supported projects, the *Agence d'Execution des Travaux d'Interet Public* (AGETIP). By tapping AGETIP, school construction will be much cheaper and faster than if the government had done the work.

One part of the project aims to greatly increase the limited amount of textbooks

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• **Burkina Faso.** The government will launch a private-sector assistance project supported by a credit of SDR 5.1 million ($7 million) from the International Development Association (IDA). The project will focus on the institutional development of the government agencies delivering administrative services to the private sector and of financial intermediaries.

• **Colombia.** The government will adjust the provision of agricultural credit to a market-based framework with the support of a $250 million World Bank loan. The project would support Colombia's move away from forced investments, directed lending and subsidized interest rates for agriculture, to market determined resource mobilization and interest rates, and would ensure maintaining the present acceptable agricultural trade regime.

• **El Salvador.** A $40 million World Bank loan will assist the government in implementing its agricultural development policy. The project will also help strengthen the agricultural public sector, accelerate generation of more productive and environmentally sustainable agricultural technology through research and contribute to productivity improvements of small- and medium-sized farmers by providing agricultural extension services.

• **India.** The government will carry out a power grid system development project with support from a $350 million World Bank loan. The plan will help establish the Power Grid Corporation of India as a transmission service company and grid operator and support implementation of modern system-coordination and control facilities and reinforcement of India's transmission system.

• **Indonesia.** A $155 million World Bank loan will support a project aimed at improving *Kabupaten*, or district, roads in Eastern Indonesia. The project will lead to improved rural access to the main economic centers in the largely agriculturally dependent Kabupatens in Sulawesi, Nusa Tenggara and Irian Jaya, some of Indonesia's poorest provinces.

• **Madagascar.** An IDA credit of SDR 15.5 million ($21.3 million) will help the government carry out a food security and nutrition project. The proposed project will help alleviate poverty and reduce malnutrition by providing the poor with access to income-earning opportunities.

• **Mauritius.** The government will implement its education development program for the period 1993-1998 with support from a $20 million World Bank loan. The project will provide a larger and better-educated pool of secondary school graduates, improve the quality and sophistication of the future labor force and facilitate the transition of the Mauritian economy to a higher level of productivity.

READEX FICHE

Date	Event	Sponsor	Location	Telephone
MARCH				
29-31	Annual Meetings of the Board of Governors	Inter-American Development Bank	Hamburg	(202) 623-1000
29-31	Conference on Migration	Organization for Economic Cooperation and Development	Madrid	(33-1) 45248200
29-Apr. 2	Meeting of the Committee on World Food Security	U.N. Food and Agriculture Organization	Rome	(39-6) 57971
APRIL				
5-8	Fourth Global Warming International Conference	Global Warming International Center	Chicago	(708) 910-1551
5-8	Arab Population Conference	Economic and Social Commission for Western Asia	Amman	(962-6) 694-351
13-16	U.N. Tropical Timber Conference	UNCTAD	Geneva	(41-22) 734-6011
14-16	Intergovernmental meeting on the World Climate Programme	World Meteorological Organization	Geneva	(41-22) 730-8111
19-22	Telecommunications Development and Implementation in the CIS, Baltics andOther Countries	ADMERCA, International Telecommunications Union	Moscow	(202) 467-8540
26	Publication of *World Economic Outlook*	IMF	Washington	(202) 623-7062
26-27	Annual Meeting of the Board of Governors	European Bank for Reconstruction and Development	London	(44-71) 338-6000
27-28	International Telecommunications Conference and Exhibit	Adam Smith Institute	Budapest	(44-71) 222-4995
28	Group of 24 (meeting of deputies)	World Bank-IMF	Washington	(202)623-7062
28-29	International Conference on Black Sea Oil and Gas	Europe Energy Environment, Ltd.	Istanbul	(44-71) 493-4918
29	Group of 24 (Ministerial level delegates meeting)	World Bank-IMF	Washington	(202) 623-7062
29-30	Ministerial Conference on Environment for Europe	Switzerland	Luzern	(41-31) 617049
30	Interim Committee	IMF	Washington	(202) 623-7062
MAY				
1	Development Committee	World Bank-IMF	Washington	(202) 623-7062
3-4	Conference on Development Economics	World Bank	Washington	(202) 473-1062
3-4	Eastern Europe Conference	American Conference Institute	New York	(416) 927-0718
3-14	World Health Assembly	World Health Organization	Geneva	(41-22) 791-2111

Editor's Note: *Development Agenda* is a feature that alerts journalists to key news events in the field of economic development. Journalists should contact sponsoring agencies for details about each event.

Press Accreditation Deadline Set for April 15

Registration for journalists planning to attend the 1993 spring meetings of the International Monetary Fund and the World Bank Group is under way.

Only "accredited" journalists may attend the meetings, and accreditation is limited to people whose primary profession is journalism.

Journalists should send a completed "Request for Press Accreditation" form to the office of Graham Newman at the IMF Information Division by April 15.

To be accredited, members of the press must hold valid press credentials. For correspondents based in the Washington, D.C. metropolitan area, only press credentials issued by the White House, the U.S. Department of State, the U.S. Treasury Department, and the U.S. Department of Defense will be accepted. U.S. Congress press passes will not be accepted.

Journalists who are not based in the Washington metropolitan area and who hold no current press credentials must attach a signed assignment letter from their editor to the accreditation form.

A press room will be located in the IMF Visitors' Center, which is adjacent to the IMF's main entrance at 700 19th Street N.W. in Washington. The room, which will open at noon on Sunday, April 25, will have about 100 working spaces, each equipped with a telephone and a typewriter.

Access to the press room, press conferences, briefings and other special events is restricted to registered participants. Press registration will begin at noon on April 25 at the IMF Visitors' Center. After that, journalists may register between 9 a.m. and 6 p.m. from April 26 through May 1. To register, journalists must appear in person and present valid press credentials that bear a photograph.

Hotel Information

Journalists who have problems making arrangements for hotel accommodations should contact the IMF Information Division at (202) 623-7100—or send a fax to (202) 623-6772—for assistance.

Press Accreditation

Contact the office of Graham Newman at the IMF Information Division for a "Request for Press Accreditation" form. Tel. (202) 623-7063. Fax (202) 623-6772.

World Bank

For information about events sponsored by the World Bank, contact Bill Brannigan at (202) 473-1784.

IMF

For information about events sponsored by the IMF, contact Hernan Puentes at (202) 623-7062 or Graham Newman at (202) 623-7063.

Development Committee Meets May 1

The 1993 spring meetings of the International Monetary Fund and the World Bank Group will take place in Washington, D.C. from April 26 through May 1. A partial and tentative schedule of events follows:

Date	*Time*	*Event*	*Location*
April 25	noon	Press registration opens Press room opens	
April 26	11 a.m.	**Press conference** Michael Mussa, Economic Counsellor and Director, IMF Research Department on the 1993 *World Economic Outlook*	IMF Meeting Hall
April 27	9 a.m.	**Press conference** Michel Camdessus, Managing Director, IMF	IMF Meeting Hall
April 28	9 a.m.	Group of 24 Deputies	IMF Meeting Hall
April 29	9 a.m.	Group of 24 Ministers	IMF Meeting Hall
	t.b.a.	**Press conference** Chairman, Group of 24 Ministers	IMF Meeting Hall
April 30	7:45 a.m.	Group of 10 Ministers	IMF Board Room
	9:30 a.m.	Interim Committee	IMF Meeting Hall
May 1	7:45 a.m.	**Press conference** Chairman, Interim Committee Managing Director, IMF	World Bank H Building Aud.
	9 a.m.	Development Committee	IMF Meeting Hall
	t.b.a.	**Press conference** Chairman, Development Committee President, World Bank Managing Director, IMF	IMF Meeting Hall
		Press reception	IMF Atrium

Photo opportunities, on a "pooled" basis, will take place at the start of ministerial meetings. Contact Kathleen White at the IMF's Information Division for details about the photo pool. Tel. (202) 623-4899. Fax (202) 623-6772.

Russia Bolsters Privatization Effort

Officials from the Russian Federation and the World Bank signed on March 19 an agreement for a $90 million loan to aid the government's program to privatize state-owned enterprises. The loan had been approved by the Bank on December 17, 1992. From left to right: Anatoly Chubais, Vice Prime Minister and Chairman for the State Committee of the Russian Federation for the Management of State Property; Jonathan Pavluk of the World Bank's Legal Department; Ernest Stern, World Bank Managing Director.

Senegal Boosts Girls' Enrollments

SENEGAL, *from page 3*

available in schools by contracting out to private book publishers. The plan would increase the distribution of books and cut prices throughout the country. In an ongoing project, the plan has reduced average book prices by some 70 percent, says Bellew.

"Books you find in the bookstores in Senegal are published by French publishers and are very expensive, so price is one main problem. The other problem is that distribution is very limited. The only place you could find a textbook was in the main libraries in the big towns," she says. "If the plan works, the textbook shortage will no longer exist in a few years."

An experimental "School Development Fund" is another big innovation under the project. The fund would help decentralize the school system by awarding money to schools which develop innovative plans that improve primary education and raise female enrollment.

The project will also improve the quality and efficiency of secondary and higher education by funding studies for a long-term development program for general secondary education.

The project is part of the government's education reform strategy adopted in 1985. □

Croatia, Slovenia Become Members Of World Bank

The Republic of Croatia and the Republic of Slovenia have become members of the International Bank for Reconstruction and Development (IBRD) by succeeding, as of February 25, 1993, to the membership of the Socialist Federal Republic of Yugoslavia (SFRY), whose membership was terminated as of that date.

The IBRD is the main arm of the World Bank Group of organizations and provides loans on market terms to countries to finance development projects.

Croatia and Slovenia have also become members of the International Development Association and the International Finance Corporation by succeeding to the membership of the SFRY in these organizations. IDA is the World Bank's concessionary lending affiliate, and the IFC is the private sector arm of the World Bank.

The change brings the number of IBRD member countries to 174. IDA now has 150 members, and IFC 153. □

Peru Clears Arrears

The Government of Peru cleared about $900 million in arrears to the World Bank on March 18.

The World Bank had placed all loans to Peru in "non-accrual" status in August 1987, when loan payments became overdue by more than 180 days. In October 1990, Peru resumed payments on current debt service, but remained in arrears to the World Bank.

These arrears have now been cleared with the aid of bridge financing from the U.S. Department of the Treasury and the Export-Import Bank of Japan. □

WORLD BANK NEWS

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World Bank News is published in English, French and German by the Information and Public Affairs Division of the World Bank's External Affairs Department, Washington, D.C. 20433, U.S.A. Maps appearing in World Bank News are for the convenience of readers. The denominations used and the boundaries shown do not imply any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries. (ISSN 0254 6353) Telephone: (202) 473-9661.

The World Bank Group is the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA). IBRD is the main lending arm of the World Bank. IDA is the World Bank affiliate that lends on concessional terms to the poorest countries. IFC finances private sector projects and advises businesses and governments on investment issues. MIGA promotes foreign direct investment through guarantees, policy advice, and promotional services.